

#### ABSTRACT OF THE DISCLOSURE

[90] A method, system, device and computer program product for a demodulator with communications link adaptation, including receiving a modulated signal over the communications channel; extracting clusters from the modulated signal based on an unsupervised clustering technique; computing a mean and standard deviation for each extracted cluster; determining categories for each extracted cluster based on a training sequence included in the modulated signal; and demodulating the modulated signal based on the mean, the standard deviation and the determined categories.